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K5XY
Alex. F. Burr
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W4GHV-5
Bo Barry
Editor

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* *Controlling A Transceiver (FT-757GX) From A TS-1000, LU8MAD*
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* *Unclassified Ads*

32K BANKED MEMORY

Plugs into the TS2068 cartridge slot. This 32K ram is much more than just a memory. An on board battery keeps it alive even when you turn the computer off. Switch selectable for use in the DOCK or EXROM banks with NO mods to the computer. Write protect switch lets you use memory like an EPROM. Run your own plug-in BASIC programs! Extend capacity by 32K. Reduce or eliminate tape loading time. Detailed instructions include utilities for bank switching and data transfers. The perfect tool for extending your 2068's memory or for writing and debugging EPROM software. A beautiful board: solder masked, gold tipped, satellite grade anti-static coating. Very dependable and rugged. Battery included. Only $109.95

EXTENDED BASIC

22 new commands for your TS1000! Advanced screen utilities make your ZX81 look more like a monochrome 2068. Includes READ, DATA, RESTORE, FILL MOVE, LEFT$, MID$, RIGHT$. IN and OUT commands give you Basic control of I/O mapped peripherals which were previously accessed only in machine code. Extended Basic does not require the use of PEEK, POKE, or USR. Takes up just 3.5K of memory. 24 page manual, sample listings included. Unbelievable speed, excellent documentation. NO USR CALLS!! Only $19.95

WATOR ✪ ZX81!

Now the ZX81/TS1000/1500 has its very own (and very excellent) version of this popular ECOLOGY SIMULATION program; the idea of which first appeared in Oct. '84 Scientific American. WATOR recreates the ecology of 3 interdependent species. You can experiment by changing populations, feed cycles, reproduction, etc. Watch generations pass on the TV screen. Generate HI-RES population curves on the TS2040 printer. Very useful for studying predator/prey relationships. On cassette: Just $16.95

UNIVERSAL I/O PORT

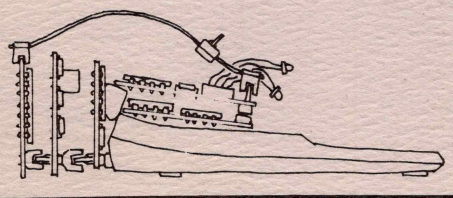
The ideal peripheral for experimentors. Learn to control and sense external devices using your computer. Works with ALL Sinclair/Timex machines. 8 bits parallel input, 8 bits latched output plus 2 handshake lines. Easy to set up or reconfigure many times. This board forms the foundation of a series of software applications which teach concepts of port programming. Choose one application listed below ABSOLUTELY FREE when you order a port board. Only $69.95 each or 2 boards for $109.95

APPLICATIONS AVAILABLE NOW!!

*Morse Code Translator for TS2068--Accepts tone decoder input, outputs ENGLISH on the TV screen or printer. Full screen display, auto scrolling. 5K buffer. Unique built-in signal reader aids in detecting/reducing noise from the system. This program is a great tool for learning morse code. Instructions cover set-up, tips for noise reduction, and a detailed tutorial on CW translation theory. Regularly: $16.95

*Pseudoscope for TS2068--A serial bit stream analyzer which mimics the action of an oscilloscope. Use to graphically portray low frequency digital signals in a horizontally scrolling graph. Program lets you store and compare samples. Print them out on a 2040 printer. Adjustable sample rate, 60hz timing dots are plotted with your input sample. Pseudoscope lets you SEE morse, rtty, serial keyboard signals, etc. as the computer sees them. Very useful in program development or in optimizing interface hardware. Tape/instruction book/full disassembly: $16.95

*Computer I/O Data Communications--Lets your 2068 speak to your ZX81! Use your TS1000 (must have 64K ram) to store data for your 2068. Send commands which transfer data back and forth, or cause the TS1000 to execute your own special Basic commands. Now 2068 owners can put their old 1000's back on line. Software includes operating systems for both computers. Requires 2 port boards (one for each computer). Tape/instructions: $16.95.



Please add $1.50 per order for postage. Phone orders are gratefully accepted.
To order, send check, money order, or credit card information to:

Thomas B. Woods
P.O. Box 64, Jefferson, NH 03583
Phone (603) 586-7734

Software & Hardware for TIMEX-SINCLAIR

CAT Complete Control of a Transceiver From a TS-1000

Guillermo, LU8MAD

The CAT (Computer-Aided Transceiver) System in the Yaesu FT-757GX allows use of an external Home Computer to control the memory and operating frequency functions of the transceiver.

One-way control signals are passed to the transceiver on a serial data line, accessable at the EXT CNTL jack on the rear of the transceiver.

Data output routines may have to be in BASIC for use with the TS-1000 and RS-232 interface. I use the Memotech "Memopack RS-232C Serial Interface".

If you have this one or another with similar capability, then the program below will be very useful to you. The applications of automated station control are almost endless!

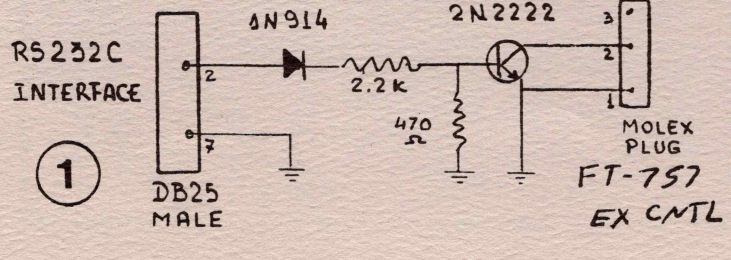
I have written a program with a wide variety of commands: memory input and recall, frequency selection, frequency step, scan, and many more functions.

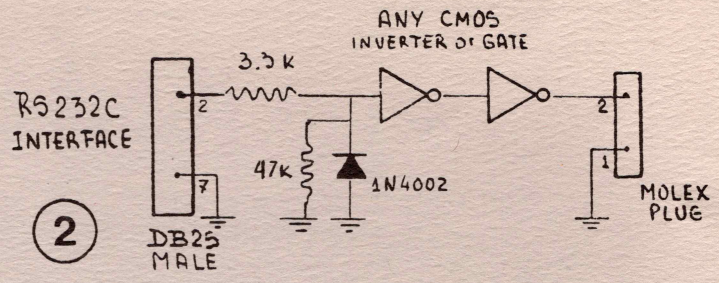
In order to make things practical, I have broken the programs into two programs, CAT and SCANNER. But they will concatenate, it is easy to do, and you can use only one program. The number of channels in SCANNER is easily expanded to 40 or many, many more.

The programs are compatible with the Yaesu FRG-8800 and FRG-965 receivers, and can be used as a starting point for two-way data communications systems in the FT-980 (which needs handshake capability), and probably with the Computer Interface Port in Kenwood's TS-711A, TS-811A, TS-940, and TS-440S.

HARDWARE

The hardware requirement is very simple, the interface is a circuit that requires only that your RS-232C line go to TTL low or less (including negative) on mark, or to +2V or higher on space.





NOTES

My printer will not display Sinclair graphics symbols or inverse characters, so the program listing has the character codes and the number of repetitions indicated between parenthesis.

Lines 5 to 26 in SCANNER are optional.

Lines 20 & 22 in CAT and 5704 & 5706 in SCANNER fix the baud rate to 4800 for the Memopack. Replace with appropriate instructions for other interfaces or baud rates.

Lines 4590, 4710, & 5000 in CAT and 5754 & 6506 in SCANNER send serial data to the transceiver via the Memopack.

CAUTION

You can "SAVE" SCANNER with all channels and frequencies put into your computer memory, but when you reload SCANNER, do not RUN, but enter GOTO 5702.

REFERENCES

CAT System FT757GX, Data Manual, Yaesu Musen Co. Ltd., P.O. Box 1500, Tokyo, Japan

A CAT Control System, (SM6CPI), QST, October 1985.

Math's Notes (an RS-232 to TTL converter), CQ, January 1985.

ZX81 ON PACKET!

We finally got it done! The ZX81 is now on packet. Full details next month. Basically you put the COMLINK 1 (see ad in April issue) between your ZX81 and a TNC. Next month we will have a

complete reveiw of the COMLINK 1 and all the details of operationg on packet and connecting radio bulletin boards with our Sinclair computers. Call the QZX bulletin board at (505) 646-5194 for an advanced look at these articles. They are in file area #7. (See November QZX for bulletin board details.)

Editor's Doings - W4GHV

About all I've accomplished is the enjoyment of a vacation in North Carolina! I hate to get behind with QZX and hope to catch up! We need good articles to publish!

Looking for more reading material? Received was a flyer from Time Designs Magazine, 29722 Hult Rd., Colton, OR 97017. They publish a 36 page bimonthly (ON TIME) that covers all of the Timex/Sinclair series. Rate is $15/year. I did not receive an issue to evaluate, just reporting the info. They also offer some books: "Control Things With Your Timex/Sinclair" ($5 ppd), "ZX81: Programming For Real Applications" ($6 ppd), and "The Official T/S 2068 Technical Manual" ($25 ppd).

UNCLASSIFIED ADS

WANTED: UNCLASSIFIED ADS for publication in QZX. Cost is 1 cent for each keystroke (characters, blanks, etc.). Payment must be included with order. This is an excellent way to sell your program or unwanted equipment, ask for help, or find a specific program. Send your ad with payment to QZX, 2025 O'Donnell, Las Cruces, NM 88001.

FOR SALE: TIMEX 1000 computer, model 2040 printer, NU4V's RTTY and CW programs, RTTY, CW, and Hunter EPROM modules in cases. Byte-Back RS-232 module. Documentation. $110 for all, I'll pay shipping. Tim Rulon, WA2KQD, 1604 Billman Lane, Silver Spring, MD 20902 301-946-7928

Sinclair in Mexico, from Everett Talavera

Attention all Timex/Sinclair Users.

For all of you that are worried for the future of your Timex/Sinclair computers

*** Timex (Portugal) is coming to Mexico! ***

The company that is planning this invited our group to talk about the future of our computing. They plan to have, the Timex 1500 computer, Timex 2048, Timex 2080, serial interface, 40 column printer, and the most important thing - single and dual 3" disk drives with CP/M compatibility. All this in about 2 months (June). I will describe the equipment.

Timex 1500. This is the good old Timex/Sinclair 1500, with the only difference that it is no longer in a silver case. It is now all black with the keyboard silver.

Timex 2048. At first, I thought that it was the Timex/Sinclair 2048 that Timex never released, but it looks identical to the Timex/Sinclair 2068 but without the cartridge dock. But what a great surprise. It was a Spectrum in 2068 clothes. It has exactly the same features as the 2068, same case but without the cartridge dock, same keyboard, same on and off switch. But on the right a monitor jack and now, the big one, a joystick port on the left. Yes, you are right! The joystick port is Kempston compatible! How about that.

Timex 2080. I have searched for the source of this printer. It seems that it is the GP-1000 printer from Seikoska.

Serial interface. This interface will let these computers connect to big printers.

Fourty column printer. I also have found that this is the GP-505 printer from Seikosa. It uses normal 5" paper and it is said to be compatible with the ZX-81, T/S 1000, T/S 1500, T/S 2068, Timex 2068, Spectrum, and the Spectrum Plus.

And of course a lot of software! If things work out right, they plan to sell the Timex 2068 and the QL. They told us that the first shipment from Timex Portugal was for about 10,000 units. Sounds great, doesn't it.

If your are interested and need more information, feel free to write to us at the following address

G.U.T.S. de Mexico, Tlaloc #21, Col. Tlaxpana,C.P. 11370, Mexico, D.F.

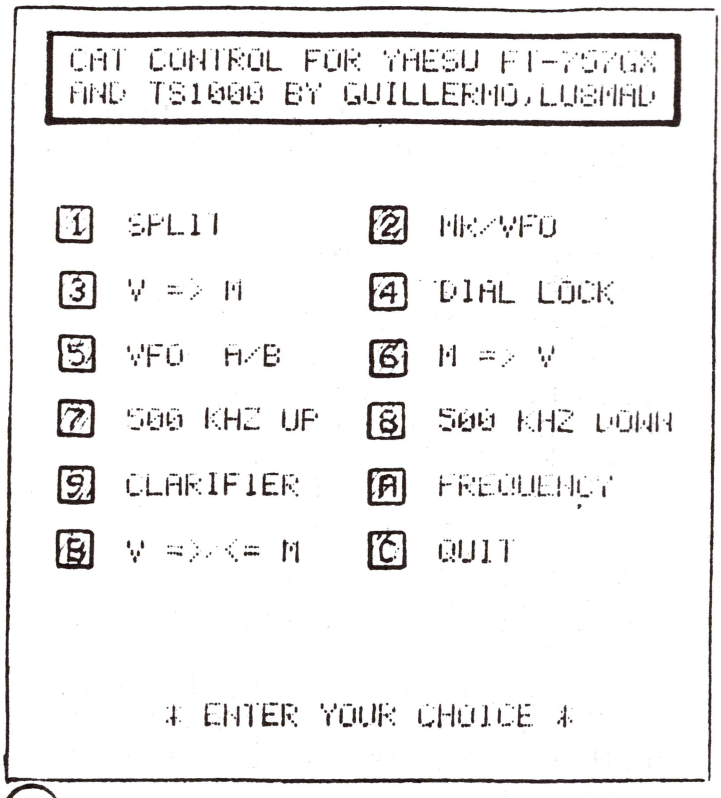
"CAT" PROGRAM

```
   10 GOSUB 6900
   18 REM ROUTINE  WHICH  SEND
         4800  BAUDIOS, 8 BIT
         WITH MEMOTECH RS232C
   19 PRINT
   20 LET P$="00011100,00001000"
   22 RAND USR 10900
   24 PRINT AT 10,6;"RS 232C ENAB
LED..."
   26 FOR A=1 TO 100
   27 NEXT A
   90 CLS
   91 GOTO 138
  100 SLOW
  102 PRINT "CHR$ 7 (30)CHR$ 3 CH
R$ 132";"CHR$ 5 CAT CONTROL FOR
YAESU FT-757GX CHR$ 133";"CHR$ 5
 AND TS1000 BY GUILLERMO,LU8MAD
CHR$ 133";"CHR$ 130 (30)CHR$ 131
 CHR$ 129"
  132 RETURN
  134 STOP
  138 GOSUB 100
  140 PRINT AT 6,1;"CHR$ 157  SPL
IT";TAB 17;"CHR$ 158  MR/VFO"
  142 PRINT AT 8,1;"CHR$ 159  V =
> M";TAB 17;"CHR$ 160  DIAL LOCK
"
  144 PRINT AT 10,1;"CHR$ 161  VF
O  A/B";TAB 17;"CHR$ 162  M => V
"
  146 PRINT AT 12,1;"CHR$ 163  50
0 KHZ UP";TAB 17;"CHR$ 164  500
KHZ DOWN"
  148 PRINT AT 14,1;"CHR$ 165  CL
ARIFIER";TAB 17;"CHR$ 166  FREQU
ENCY"
  150 PRINT AT 16,1;"CHR$ 167  V
=>/<= M";TAB 17;"CHR$ 168  QUIT"
  160 PRINT AT 21,6;"* ENTER YOUR
 CHOICE * ";AT 21,6;"
           "
  190 IF INKEY$="" THEN GOTO 160
  199 IF INKEY$<>"" THEN CLS
  202 IF INKEY$="1" THEN LET T$="
000000000001"
  203 IF INKEY$="1" THEN GOTO 201
0
  204 IF INKEY$="2" THEN LET T$="
000000000002"
  205 IF INKEY$="2" THEN GOTO 201
2
  206 IF INKEY$="3" THEN LET T$="
000000000003"
  207 IF INKEY$="3" THEN GOTO 201
4
  208 IF INKEY$="4" THEN LET T$="
000000000004"
  209 IF INKEY$="4" THEN GOTO 201
6
  210 IF INKEY$="5" THEN LET T$="
000000000005"
  211 IF INKEY$="5" THEN GOTO 201
8
  212 IF INKEY$="6" THEN LET T$="
000000000006"
  213 IF INKEY$="6" THEN GOTO 202
0
  214 IF INKEY$="7" THEN LET T$="
000000000007"
  215 IF INKEY$="7" THEN GOTO 100
0
  216 IF INKEY$="8" THEN LET T$="
000000000008"
  217 IF INKEY$="8" THEN GOTO 410
0
  218 IF INKEY$="9" THEN LET T$="
000000000009"
  219 IF INKEY$="9" THEN GOTO 450
0
  220 IF INKEY$="A" THEN GOTO 240
  222 IF INKEY$="B" THEN LET T$="
00000000000B"
  223 IF INKEY$="B" THEN GOTO 204
0
  224 IF INKEY$="C" THEN STOP
  226 IF INKEY$<"1" OR INKEY$>"C"
  THEN GOTO 160
  228 IF INKEY$="1" OR INKEY$="2"
  OR INKEY$="3" OR INKEY$="4" OR
INKEY$="5" OR INKEY$="6" OR INKE
Y$="9" OR INKEY$="B" THEN GOTO 2
000
  230 CLS
  240 REM FREQUENCY CONTROL
  241 CLS
  242 GOSUB 100
  243 GOSUB 6800
  244 PRINT AT 8,1;"FREQUENCY IN
KHZ ? "
  246 INPUT A$
  247 PRINT AT 8,0;"
                "
  254 GOSUB 8000
  256 GOSUB 5020
  280 LET T$=A$(7 TO 8)+A$(5 TO 6
)+A$(3 TO 4)+A$(1 TO 2)+"0A"
  290 GOTO 4000
1010 GOSUB 100
1020 PRINT AT 5,10;"""BAND UP"""
1022 GOSUB 5700
1024 GOTO 1032
```

```
1025 IF INKEY$="Y" THEN GOTO 103
5
1026 IF INKEY$="N" THEN GOTO 102
9
1028 GOTO 1025
1029 GOSUB 6800
1030 PRINT AT 11,0;"
                    "
1031 GOTO 1034
1032 PRINT AT 11,1;"FREQUENCY IN
 KHZ IS OK (Y/N) ? "
1033 GOTO 1025
1034 GOSUB 3000
1035 PRINT AT 21,0;""P"" TO PAU
SE        ""M"" TO MENU"
1036 LET T$="0000000007"
1038 PAUSE 15
1039 GOSUB 5000
1040 LET C=0
1041 LET D=0
1042 LET F3=F3+5
1060 GOSUB 1600
1100 GOTO 1300
1200 PRINT AT 20,0;"PAUSE
""ENTER"" TO CONTINUE"
1210 PAUSE 4E4
1215 PRINT AT 20,0;"
                    "
1300 IF F2>=100 THEN GOTO 1304
1302 GOTO 1310
1304 LET C=F2-100
1305 LET F2=C
1306 LET F3=F3+1
1310 IF F3>=100 THEN GOTO 1314
1312 GOTO 1320
1314 LET D=F3-100
1316 LET F3=D
1318 LET F4=F4+1
1319 GOTO 1360
1320 GOSUB 1350
1349 GOTO 1036
1350 GOSUB 5560
1356 RETURN
1360 IF F4=2 THEN GOTO 1400
1370 GOTO 1340
1405 LET F4=0
1410 LET F3=05
1420 LET F2=00
1425 LET F1=00
1430 PRINT AT 8,11;"00";" ";"05"
;" ";"00";".";"00"
1500 GOTO 4005
1610 IF INKEY$="P" THEN GOTO 120
0
1620 IF INKEY$="M" THEN GOTO 400
5
1640 RETURN
1999 STOP
2000 CLS
2010 PRINT AT 10,5;"SPLIT DONE..
."
2011 GOTO 4000
2012 PRINT AT 10,5;"MR / VFO  DO
NE..."
2013 GOTO 4000
2014 PRINT AT 10,5;"V => M  DONE
..."
2015 GOTO 4000
2016 PRINT AT 10,5;"DIAL LOCK  D
ONE..."
2017 GOTO 4000
2018 PRINT AT 10,5;"VFO A/B  DON
E..."
2019 GOTO 4000
2020 PRINT AT 10,5;"M => V  DONE
..."
2021 GOTO 4000
2040 PRINT AT 10,5;"V =>/<= M
DONE..."
2041 GOTO 4000
3020 INPUT A$
3050 GOSUB 5020
3060 GOSUB 5560
3100 LET T$=A$(7 TO 8)+A$(5 TO 6
)+A$(3 TO 4)+A$(1 TO 2)+"0A"
3990 RETURN
4000 GOSUB 5000
4005 PRINT AT 21,0;"
                    "
4008 PRINT AT 21,4;"* PRESS ""M"
" TO MENU *"
4010 IF INKEY$="M" THEN GOTO 403
0
4020 GOTO 4005
4030 CLS
4040 GOTO 90
4100 CLS
4110 GOSUB 100
4120 PRINT AT 5,10;""BAND DOWN"
""
4122 GOSUB 5700
4124 GOTO 4130
4125 IF INKEY$="Y" THEN GOTO 103
5
4126 IF INKEY$="N" THEN GOTO 102
9
4127 GOTO 4125
4128 GOSUB 6800
4129 PRINT AT 11,0;"
                    "
4130 PRINT AT 11,1;"FREQUENCY IN
 KHZ IS OK (Y/N) ? "
4131 GOTO 4125
4134 GOSUB 3000
```

```
4136 PRINT AT 21,0;"""P"" TO PAU
SE        ""M"" TO MENU"
4137 LET T$="000000000008"
4138 PAUSE 15
4139 GOSUB 5000
4140 LET C=0
4141 LET D=0
4142 LET F3=F3-5
4160 GOSUB 4300
4170 GOTO 4220
4200 PRINT AT 20,0;"PAUSE
""ENTER"" TO CONTINUE"
4210 PAUSE 4E4
4215 PRINT AT 20,0;"
                    "
4220 IF F2<0 THEN GOTO 4224
4223 GOTO 4228
4224 IF F3>=1 THEN LET C=F2+100
4226 IF F3>=1 THEN LET F3=F3-1
4227 IF F3 THEN LET F2=C
4228 IF F3<0 THEN GOTO 4232
4230 GOTO 4240
4232 IF F4 THEN LET D=F3+100
4234 IF F4 THEN LET F3=D
4238 IF F4 THEN LET F4=F4-1
4239 IF F3<5 AND F4=0 THEN GOTO
4252
4240 GOSUB 4243
4242 GOTO 4136
4243 LET F$=STR$ F3
4244 LET D$=STR$ F4
4245 LET G$=STR$ F2
4246 LET H$=STR$ F1
4248 PRINT AT 15,11;TAB 11-LEN D
$/2;TAB 12;" ";TAB 14-LEN F$/2;F
3;TAB 15;" ";TAB 16-LEN G$/2;TAB
 19-LEN H$/2
4249 RETURN
4250 GOTO 4241
4252 LET F4=02
4254 LET F3=99
4256 LET F2=99
4258 PRINT AT 15,10;"02";TAB 13;
"99";TAB 16;"99"
4259 GOSUB 4400
4260 GOTO 4005
4300 IF INKEY$="P" THEN GOTO 420
0
4310 IF INKEY$="M" THEN GOTO 400
5
4315 RETURN
4400 LET T$="000000000008"
4410 RETURN
4500 CLS
4502 GOSUB 100
4504 PRINT AT 5,10;"CLARIFIER"
4506 GOSUB 4600
4508 PRINT AT 7,0;"FREQUENCY";TA
B 1;"ACTUAL";TAB 2;"KHZ"
4512 PRINT AT 11,1;"CHR$ 166 ACT
IVATE";TAB 16;"CHR$ 167 DEACTIVA
TE"
4513 PRINT AT 21,4;"""WHAT IS YO
UR CHOICE?.."""
4514 IF INKEY$="A" THEN GOTO 470
0
4516 IF INKEY$="N" THEN GOTO 473
0
4518 IF INKEY$="" THEN GOTO 4514
4520 IF INKEY$<>"A" AND INKEY$<>
"N" THEN GOTO 4514
4522 PRINT AT 14,0;"STEEP:";TAB
1;"CHR$ 157 100 HZ";TAB 12;"CHR$
 158 1 KHZ";TAB 23;"CHR$ 159 10
KHZ"
4524 PRINT AT 17,0;"TO GO:";TAB
1;"CHR$ 186 FREQUENCY UP";TAB 16
;"CHR$ 169 FREQUENCY DOWN"
4526 PRINT AT 20,10;"CHR$ 178 MA
IN MENU"
4530 IF INKEY$="1" THEN GOTO 476
0
4532 IF INKEY$="2" THEN GOTO 477
0
4533 IF INKEY$="3" THEN GOTO 478
0
4534 IF INKEY$="" THEN GOTO 4530
4540 IF INKEY$="U" THEN GOTO 480
0
4542 IF INKEY$="N" THEN GOTO 473
6
4550 IF INKEY$="D" THEN GOTO 486
0
4555 IF INKEY$="M" THEN GOTO 90
4560 IF INKEY$="" THEN GOTO 4540
4570 GOTO 4530
4580 GOSUB 4614
4590 RAND USR 10890
4594 GOTO 4540
4610 PRINT AT 7,10;"CHR$ 7 (11)C
HR$ 3 CHR$ 132";TAB 10;"CHR$ 5";
TAB 22;"CHR$ 133";TAB 10;"CHR$ 1
30 (11)CHR$ 131 CHR$ 129"
4614 GOSUB 5500
4624 LET T$=H$(7 TO 8)+H$(5 TO 6
)+H$(3 TO 4)+H$(1 TO 2)+"0H"
4625 RAND USR 10895
4630 RETURN
4705 LET T$="000000000009"
4710 RAND USR 10895
4720 GOTO 4521
4730 PRINT AT 11,1;"CHR$ 166";TA
B 16;"CHR$ 136"
```

```
4740 GOTO 4705
4760 LET P=1
4762 PRINT AT 15,1;"CHR$ 136";TA
B 12;"CHR$ 158";TAB 23;"CHR$ 159
"
4764 GOTO 4540
4770 LET P=0
4772 PRINT AT 15,1;"CHR$ 157";TA
B 12;"CHR$ 136";TAB 23;"CHR$ 159
"
4774 GOTO 4540
4780 LET P=2
4782 PRINT AT 15,1;"CHR$ 157";TA
B 12;"CHR$ 158";TAB 23;"CHR$ 136
"
4784 GOTO 4540
4800 IF P=1 THEN LET F1=F1+10
4801 GOSUB 4900
4802 IF P=0 THEN LET F2=F2+1
4803 GOSUB 4900
4804 IF P=2 THEN LET F2=F2+10
4805 GOSUB 4900
4806 PRINT AT 18,1;"CHR$ 136";TA
B 16;"CHR$ 169"
4810 GOTO 4580
4860 IF P=1 THEN LET F1=F1-10
4861 GOSUB 4900
4862 IF P=0 THEN LET F2=F2-1
4863 GOSUB 4900
4864 IF P=2 THEN LET F2=F2-10
4865 GOSUB 4900
4866 PRINT AT 18,1;"CHR$ 166";TA
B 16;"CHR$ 136"
4870 GOTO 4580
4910 IF F1>=100 THEN LET F2=F2+1
4911 IF F1>=100 THEN LET F1=F1-1
00
4912 IF F1<0 THEN LET F2=F2-1
4914 IF F1<0 THEN LET F1=F1+100
4916 IF F2>=100 THEN LET F3=F3+1
4917 IF F2>=100 THEN LET F2=F2-1
00
4918 IF F2<0 THEN LET F2=F2+100
4920 IF F2<0 THEN LET F3=F3-1
4922 IF F3>=100 THEN LET F4=F4+1
4923 IF F3>=100 THEN LET F3=F3-1
00
4924 IF F3<0 THEN LET F4=F4-1
4926 IF F3<0 THEN LET F3=F3+100
4928 IF F4>=2 AND F3=99 AND F2>9
9 THEN LET F4=0 AND F3=05 AND F2
=00
4930 IF F4<=0 AND F3=05 AND F2=0
0 THEN LET F4=2 AND F3=99 AND F2
=99
4950 RETURN
5000 RAND USR 16895
5010 RETURN
5020 LET F1=VAL A$(7 TO 8)
5030 LET F2=VAL A$(5 TO 6)
5040 LET F3=VAL A$(3 TO 4)
5050 LET F4=VAL A$(1 TO 2)
5060 RETURN
5560 LET D$=STR$ F4
5570 LET E$=STR$ F3
5580 LET G$=STR$ F2
5590 LET H$=STR$ F1
5600 PRINT AT 8,11;"00";" ";"00"
;" ";"00";".";"00"
5610 PRINT AT 8,10;TAB 13-LEN D$
/2;F4;TAB 15-LEN E$/2;F3;TAB 18-
LEN G$/2;F2;TAB 21-LEN H$/2;F1
5620 RETURN
5700 GOSUB 4610
5710 RETURN
6800 PRINT "YOU MUST SET FREQUEN
CY IN EIGHT INTIRE CIPHER NS THE
 FOLLOWING  EXAMPLE:(7192 KHZ) 1
5 ""00/19200"""
6850 RETURN
6911 DIM A$(10)
6912 DIM T$(10)
6914 DIM H$(2)
6916 DIM D$(2)
6918 DIM F$(2)
6920 DIM G$(2)
6950 RETURN
8000 PRINT AT 8,10;"CHR$ 7 (11)C
HR$ 8 CHR$ 132";TAB 10;"CHR$ 5";
TAB 22;"CHR$ 133";TAB 10;"CHR$ 1
30 (11)CHR$ 131 CHR$ 129"
8010 PRINT AT 9,12;A$(1 TO 6);"
";A$(7 TO 8)
8020 RETURN
```



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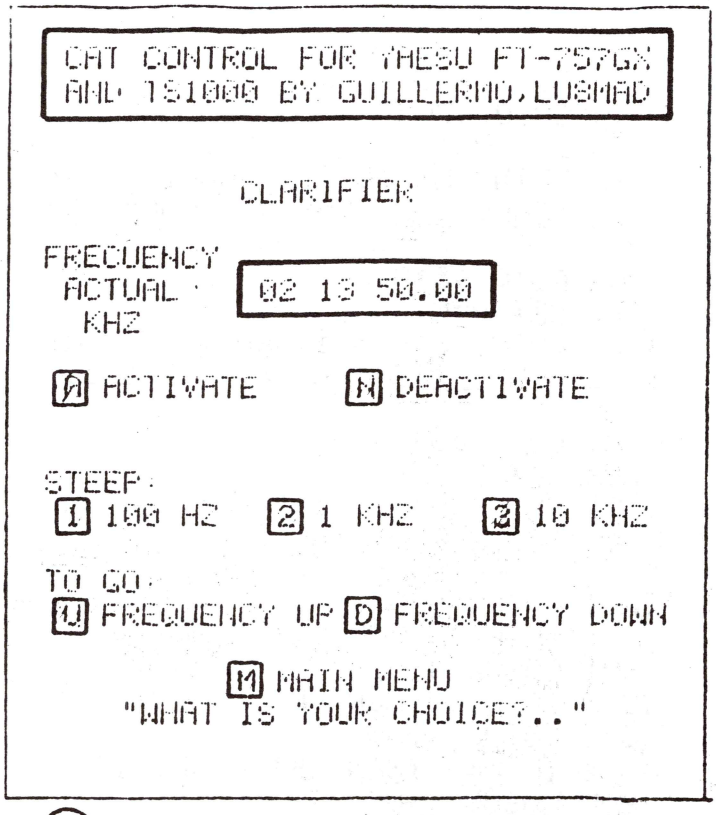
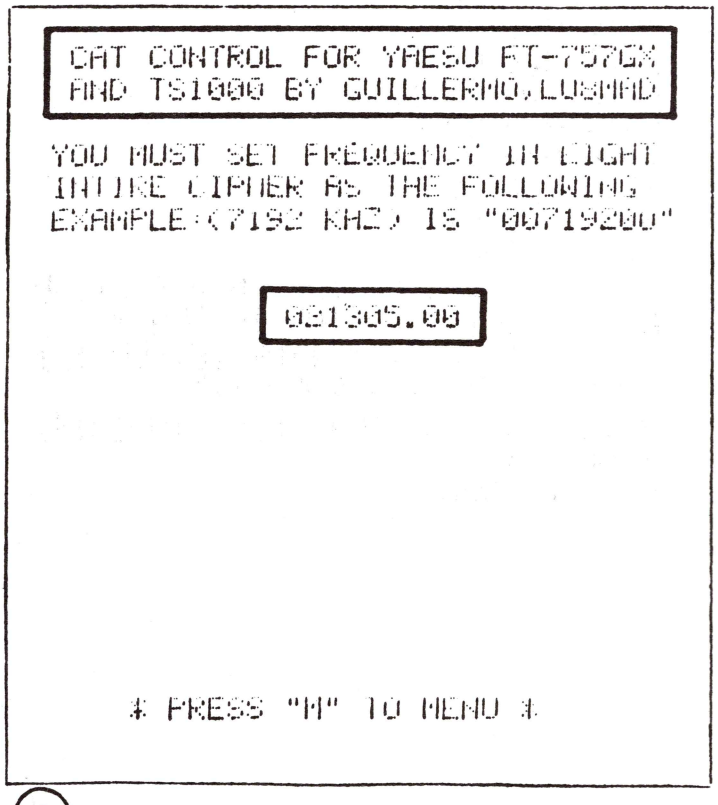
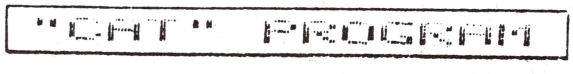


2


CAT CONTROL FOR YAESU FT-757GX
AND TS1000 BY GUILLERMO,LU8MAD
YOU MUST SET FREQUENCY IN EIGHT
INTURE CIPHER AS THE FOLLOWING
EXAMPLE:(7192 KHZ) IS "00719200"
02130500
* PRESS "M" TO MENU *

3



EXAMPLES OF "CAT" PROGRAM DISPLAYS

1 MAIN MENU

2 CLARIFIER MENU

3 FREQUENCY CONTROL AFTER TO MAKE INPUT

"SCANNER" PROGRAM

```
   5 PRINT AT 10,10;"CHR$ 7 CHR$
 3 CHR$ 132 CHR$ 0 CHR$ 129 CHR$
 3 CHR$ 130 CHR$ 0 CHR$ 3 CHR$ 7
 CHR$ 3";TAB 10;"CHR$ 5 (3)CHR$
 0 CHR$ 5 CHR$ 0 CHR$ 132 (2)CHR$
 0 CHR$ 5 ";TAB 10;"CHR$ 5 (3)CH
R$ 0 CHR$ 130 CHR$ 131 CHR$ 129
(2)CHR$ 0 CHR$ 5";TAB 10;"CHR$ 5
  (3)CHR$ 0 CHR$ 5 CHR$ 0 CHR$ 1
33 (2)CHR$ 0 CHR$ 5";TAB 10;"CHR
$ 130 CHR$ 131 CHR$ 129 CHR$ 0 C
HR$ 5 CHR$ 0 CHR$ 133 (2)CHR$ 0
CHR$ 5"
   6~PRINT AT 14,22;"CHR$ 4 (2)C
HR$ 0 CHR$ 4 (2)CHR$ 0 CHR$ 4"
   7 FOR A=1 TO 80
   8 NEXT A.
   9 CLS
  10 PRINT AT 4,6;"CHR$ 4 CHR$ 0
 CHR$ 135";TAB 5;"CHR$ 4 (3)CHR$
 128 CHR$ 135";TAB 17;"CHR$ 133"
;TAB 5;"CHR$ 132 CHR$ 130 CHR$ 1
28 CHR$ 130 CHR$ 128 CHR$ 4";TAB
 17;"CHR$ 133"


  12~PRINT AT 7,5;"CHR$ 2 CHR$ 1
46 CHR$ 139 CHR$ 147 (6)CHR$ 128
 CHR$ 4 CHR$ 0  CHR$ 133"
  14 PRINT AT 8,6;"CHR$ 132 CHR$
 150 CHR$ 7 (7)CHR$ 128 CHR$ 4 C
HR$ 133";TAB 9;"CHR$ 1 (7)CHR$ 1
28 CHR$ 129";TAB 10;"(8)CHR$ 128
"
  15 PRINT AT 11,10;"CHR$ 133 CH
R$ 7 (5)CHR$ 126 CHR$ 7";TAB 10;
"CHR$ 133 CHR$ 1 (2)CHR$ 0 CHR$
 2 (2)CHR$ 128 CHR$ 1";TAB 10;"CH
R$ 129 (3)CHR$ 0 (2)CHR$ 131 CHR
$ 128 CHR$ 1"
  20 PRINT AT 15,10;"THIS IS A C
AT..."
  21~FOR A=1 TO 100
  22 NEXT A
  24 PRINT AT 15,5;"...BUT HE CA
N NOT CRY

 MEW...MEW..."
  25 FOR A=1 TO 150
  26 NEXT A
  28 CLS
5700 GOSUB 8000
5702 PRINT AT 10,5;"RS 232C ENAB
LED..."
5704 LET P$="00011100,00001000"
5706 RAND USR 10900
5707~FOR A=1 TO 70
5708 NEXT A
5709 CLEAR
5710 GOSUB 8000
5750 LET T$="0141500000A"
5752 LET A$=T$(1 TO 8)
5754~RAND USR 10890
5800 LET 1$="0"
5801 CLS
5802 GOSUB 7900
5804 PRINT AT 5,12;"SCANNER"
5806 GOSUB 8300
5808 GOSUB 6200
5900 GOSUB 8100
5906 PRINT AT 19,0;"(A) ACTIVATE";
TAB 24;"(F) FROZEN"
5908 PRINT AT 21,4;"WHAT IS YOUR
 CHOICE ?"
5912 IF INKEY$="E" THEN GOTO 610
0
5914 IF INKEY$="D" THEN GOTO 605
0
5916 IF INKEY$="A" THEN GOTO 650
0
5918 IF INKEY$="F" THEN GOTO 670
0
5920~IF INKEY$="L" THEN GOTO 600
0
5922 IF INKEY$="" THEN GOTO 5908
5950 GOTO 5912
6000 CLS
6004 PRINT "  LIST OF ALL THE 20
 CHANNELS  "
6006 PRINT
6022 GOSUB 6360
6024 PRINT AT 21,6;"""ENTER"" TO
 CONTINUE"
6026 INPUT Z$
6028 CLS
6030 GOTO 5801
6050 CLS
6052 GOSUB 7900
6053 PRINT
6054 PRINT TAB 6;"NUMBER OF CHAN
NEL ?"
6056~PRINT AT 5,24;"= ";1$
6058 GOSUB 6060
6059 GOTO 6080
6060 GOSUB 8300
6062 PRINT AT 7,0;"FREQUENCY";TA
B 3;"TO";TAB 1;"DELETE"
6064 GOSUB 8200
6066 PRINT AT 14,4;"ARE YOU SURE
 ? (Y/N)"
6068 IF INKEY$="Y" THEN GOTO 606
0
6070 IF INKEY$="N" THEN GOTO 600
0
6072 IF INKEY$="" THEN GOTO 6068
```

```
6076 RETURN
6080 LET N=VAL I$
6082 LET B$(N)=""
6098 GOTO 5801
6100 CLS
6102 GOSUB 7900
6103 PRINT
6104 GOSUB 6800
6108 INPUT A$
6130 PRINT AT 12,4;"CHANNEL NUMB
ER ?"
6132 INPUT I$
6133 PRINT AT 5,0;"(320)CHR$ 0"
6134 FAST
6136 GOSUB 8120
6137 GOSUB 8300
6138 GOSUB 8200
6139 FOR N=1 TO 20
6140 IF I$=STR$ N THEN LET B$(N)
=A$
6142 NEXT N
6143 SLOW
6144 PAUSE 100
6145 PRINT AT 5,12;"SCANNER"
6147 GOTO 5900
6200 IF VAL I$=1-1 THEN GOTO 622
0
6202 IF VAL I$<>1-1 THEN GOTO 62
30
6226 PRINT AT 7,0;"FREQUENCY";TA
B 1;"ACTUAL";TAB 2;"KHZ"
6227 GOSUB 8200
6228 RETURN
6230 GOSUB 8120
6242 PRINT AT 8,11;TAB 21-LEN B$
(VAL I$);B$(VAL I$)
6250 RETURN
6360 PRINT "01 ";B$(1);TAB 16;"1
1 ";B$(11)
6362 PRINT "02 ";B$(2);TAB 16;"1
2 ";B$(12)
6364 PRINT "03 ";B$(3);TAB 16;"1
3 ";B$(13)
6366 PRINT "04 ";B$(4);TAB 16;"1
4 ";B$(14)
6368 PRINT "05 ";B$(5);TAB 16;"1
5 ";B$(15)
6370 PRINT "06 ";B$(6);TAB 16;"1
6 ";B$(16)
6372 PRINT "07 ";B$(7);TAB 16;"1
7 ";B$(17)
6374 PRINT "08 ";B$(8);TAB 16;"1
8 ";B$(18)
6376 PRINT "09 ";B$(9);TAB 16;"1
9 ";B$(19)
6378 PRINT "10 ";B$(10);TAB 16;"
20 ";B$(20)
6379 RETURN
6500 PRINT AT 5,20;"ACTIVATE";AT
 19,0;"CHR$ 136"
6501 PRINT AT 8,4;"00"
6502 GOSUB 6590
6503 FOR L=1 TO 20
6504 LET A$=B$(L)
6505 LET T$=A$(7 TO 8)+A$(5 TO 6
)+A$(3 TO 4)+A$(1 TO 2)+"0A"
6506 RAND USR 10890
6508 LET I$=STR$ L
6509 GOSUB 8200
6510 GOSUB 8122
6513 FOR T=1 TO X
6514 NEXT T
6516 IF INKEY$="F" THEN GOTO 670
0
6517 NEXT L
6518 GOTO 6500
6590 PRINT AT 21,0;"WHAT SPEED ?
 (>1 AND <100)"
6591 INPUT X$
6592 IF X$<"1" OR X$>"100" THEN
GOTO 6590
6594 LET X=VAL X$
6596 PRINT AT 21,0;"
                    "
6598 PRINT AT 21,10;"SPEED = ";X
6600 RETURN
6700 PRINT AT 19,0;"A";TAB 24;"C
HR$ 136";AT 5,20;"FROZEN    "
6702 PAUSE 4E4
6705 GOTO 5801
6800 PRINT "YOU MUST SET FREQUEN
CY IN EIGHT INTIRE CIPHER AS THE
 FOLLOWING  EXAMPLE:(7192 KHZ) I
S ""00719200"""
6850 RETURN
7899 STOP
7900 SLOW
7910 PRINT "CHR$ 7 (30)CHR$ 3 CH
R$ 132";"CHR$ 5 CAT CONTROL FOR
YAESU FT-757GX CHR$ 133";"CHR$ 5
 AND TS1000 BY GUILLERMO,LU8MAD
CHR$ 133";"CHR$ 130 (30)CHR$ 131
 CHR$ 129"
7920 RETURN
8000 DIM T$(10)
8002 DIM A$(8)
8004 DIM B$(20,8)
8050 RETURN
8100 PRINT AT 11,0;"CHR$ 7 (9)CH
R$ 3 FREQUENCY (10)CHR$ 3 CHR$ 1
```

```
32";"CHR$ 5";TAB 8;"[L] LIST ALL M
EMORY";TAB 31;"CHR$ 133";"CHR$ 5
";TAB 31;"CHR$ 133"
8102 PRINT AT 14,0;"CHR$ 5";TAB
8;"[E] ENTER NEW FREQ.";TAB 31;"CH
R$ 133";TAB 0;"CHR$ 5";TAB 31;"C
HR$ 133";TAB 0;"CHR$ 5";TAB 8;"[D]
 DELETE THE CURRENT";TAB 31;"CHR
$ 133";"CHR$ 130 (30)CHR$ 131 CH
R$ 129"
8104 RETURN
8120 PRINT AT 6,0;"CHR$ 7 (7)CHR
$ 3 CHR$ 132";TAB 0;"CHR$ 5 CHAN
NEL CHR$ 133";TAB 0;"CHR$ 5  000
  CHR$ 133";TAB 0;"CHR$ 130 (7)C
HR$ 131 CHR$ 129"
8122 PRINT AT 8,0;TAB 5-LEN I$/2
;I$
8124 RETURN
8200 PRINT AT 8,12;A$(1 TO 6);".
";A$(7 TO 8)
8210 RETURN
8300 PRINT AT 7,10;"CHR$ 7 (11)C
HR$ 3 CHR$ 132";TAB 10;"CHR$ 5";
TAB 22;"CHR$ 133";TAB 10;"CHR$ 1
30 (11)CHR$ 131 CHR$ 129"
8302 RETURN
```

"SCANNER" PROGRAM

EXAMPLES OF "SCANNER" POGRAM SCREEN DISPLAYS

1 MAIN MENU

2 ERASE FREQUENCY SCREEN DISPLAY

CAT CONTROL FOR YAESU FT-757GX AND TS1000 BY GUILLERMO,LU8MAD

SCANNER

CHANNEL 018 | 028975.00

FREQUENCY

[L] LIST ALL MEMORY

[E] ENTER NEW FREQ.

[D] DELETE THE CURRENT

[A] ACTIVATE [F] FROZEN

WHAT IS YOUR CHOICE ?

1

CAT CONTROL FOR YAESU FT-757GX AND TS1000 BY GUILLERMO,LU8MAD

NUMBER OF CHANNEL = 18

FREQUENCY TO DELETE | 028975.00

ARE YOU SURE ? (Y/N)

2

73, W4GHV & K5XY

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